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Dated: March 21, 2005

Signature:

Staci Harris
(Staci Harris)

Docket No.: HO-P02005US0
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Patent Application of:
Christopher J. Schofield et al.

Application No.: 09/582,486

Confirmation No.: 3471

Filed: December 24, 1998

Art Unit: 1631

For: **MODIFIED
DEACETOXYCEPHALOSPORIN C
SYNTHASES (DAOCS) AND X-RAY
STRUCTURE**

Examiner: M. L. Borin

INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information-Disclosure Statement is filed more than three months after the U.S. filing date, OR more than three months after the date of entry of the national stage of a PCT application, AND after the mailing date of the first Office Action on the merits, whichever occurs first, but before the mailing date of a Final Office Action or Notice of Allowance (37 CFR 1.97(c)).

A copy of each reference on the PTO/SB/08 is attached.

Our check in the amount of \$180.00 covering the fee set forth in 37 CFR 1.17(p) is enclosed. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter


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filed in this application by this firm) to our Deposit Account No. 06-2375, under Order No. 10020482.

Dated: March 21, 2005

Respectfully submitted,

By 
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PTO/SB/08A (10-01)

Approved for use through 10/31/2002.OMB 0651-0031

U. S. Patent and Trademark Office: U. S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	09/582,486
				Filing Date	December 24, 1998
				First Named Inventor	Christopher J. Schofield
				Art Unit	1631
				Examiner Name	M. L. Borin
Sheet	1	of	1	Attorney Docket Number	HO-P02005US0

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)					

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

¹ Applicant's unique citation designation number (optional). ² See attached Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA	Kovacevic, Steven et al.; Cloning, Characterization, and Expression in Escherichia coli of the Streptomyces clavuligerus Gene Encoding Deacetoxycephalosporin C Synthetase; <i>Journal of Bacteriology</i> , Feb. 1989, p. 754-760.	
	CB	Chin, Hong Soon et al.; A Complete Library of Amino Acid Alterations at N304 in Streptomyces clavuligerus Deacetoxycephalosporin C Synthase Elucidates the Basis for Enhanced Penicillin Analogue Conversion; <i>Applied and Environmental Microbiology</i> , Jan. 2004, p. 607-609.	
	CC	Chin, Hong Soon et al.; Mutation of N304 to Leucine in Streptomyces clavuligerus Deacetoxycephalosporin C Synthase Creates an Enzyme with Increased Penicillin Analogue Conversion; <i>Biochemical and Biophysical Research Communications</i> ; 287, 507-513 (2001).	
	CD	Lee, Hwei-Jen et al. Active Site Mutations of Recombinant Deacetoxycephalosporin C Synthase; <i>Biochemical and Biophysical Research Communications</i> ; 292, 66-70 (2002).	

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Examiner Signature		Date Considered	
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